

REMARKS

By this Amendment the specification has been amended to better describe the invention, claims 1-3 have been amended regarding their presentation, and new claim 6 has been added to define a further feature of the inventive structure. Entry is requested.

In the outstanding Office Action the examiner has again rejected claims 1-3 and 5 under 35 U.S.C. 103(a) as being unpatentable over Hwang. The applicants request reconsideration.

The examiner refers to certain figures in Hwang as disclosing that the first and second lead will cross one another at a substantially right angle but pass on each side of the layer, and that the four through holes of two crossing leads substantially constitute a square are stated to 'show the operating principle of the PCB' (cf. col. 1, lines 57-62 and col. 3, lines 8-21), i.e., the principle of mutual counteraction of induced voltages or currents in the 'twisted' conductors. However, these figures do not reflect a teaching of the actual layout of the PCB. Neither the layout drawings (Fig. 1, 2, 8, 9) nor the corresponding description disclose or hint at the above mentioned feature.

Similarly, and for the same reason, the applicants cannot agree that Hwang discloses that the square is chosen as small as possible so that a maximum number of twists is achieved as defined by claim 2 of the present application.

Similarly, the applicants cannot agree that Hwang discloses that the leads from one through hole of the layer to the next are drawn in a straight line and the through holes for passing the leads through the layer are placed side-by-side with no more space there between than is necessary for isolation purposes as defined by claim 3 of the present application. None of the layout embodiments shown are drawn in a straight line, and nothing is indicated in the patent that they are placed side-by-side as close as possible with regard to electrical isolation.

In all of the layout examples of Hwang the rectangle constituted by four neighboring through holes (vertices) has a relatively large difference in edge length (i.e. being non-square). Further, all of the layout examples of Hwang are relatively "open" in their twisting structure (i.e., not at all disclosing the features of pending claims 2, 3). None of the examples taught by Hwang resemble that of Fig. 1 of the present application, which is characterized in a square structure of the through holes and in a very dense 'twisting' structure providing a large number of twists per unit length.

The applicants believe that the claim 1 is unobvious over Hwang,
and that all of claims 1-3, 5 and new claim 6 should be allowed.

Respectfully submitted,

DYKEMA GOSSETT, PLLC

By: 

Richard H. Tushin
Registration No. 27,297
Franklin Square, Third Floor West
1300 I Street, N.W.
Washington, DC 20005-3353
(202) 906-8680